



IEC 62031, Edition 1 (2008)

TESTING AND MEASURING EQUIPMENT/ALLOWED SUBCONTRACTING

LED modules for general lighting – Safety specifications

R = Required by Lab

S = May be subcontracted

W = Witness testing

3PPS = Three Phase Power Supply required

| Clause | Measurement/testing | Testing / measuring equipment / material needed | Subcontracting |
|--------|---|--|----------------|
| 5.5 | SELV-operated LED modules | Appropriate vibration equipment (Annex I – IEC 61347-2-13) | S |
| 7.3 | Durability and legibility of marking | Pieces of cloth / water | R |
| 8 | - Screw and screwless terminals - Connectors | - Test screwdriver, digital calliper (or equivalent), test cables, pull device, screwless terminals apparatus (Section 15 – IEC 60598-1) - See IEC 60838-2-2, if applicable | R |
| 9 | Provisions for protective earthing | Earthing test equipment 25A (Clause 7.2.1 – IEC 60598-1 also refers) | R |
| 10 | Protection against accidental contact with live parts | Test finger (fig. 1 IEC 60529) with force indicator | R |
| 11 | Moisture resistance and insulation | Humidity cabinet, megaohmmeter | R |
| 12 | Electric strength | High voltage transformer | R |
| 13 | Fault conditions | Variable Supply, temperature measurement device, heating cabinet, high-frequency spark generator, tissue paper, timer voltmeter, megaohmmeter | R |



**IEC SYSTEM FOR CONFIRMITY
TESTING AND CERTIFICATION OF
ELECTRICAL EQUIPMENT**

COMMITTEE OF TESTING LABORATORIES

| Clause | Measurement/testing | Testing / measuring equipment / material needed | Subcontracting |
|---------------|---|---|-----------------------|
| 16 | <i>Creepage distances and clearances</i> | <i>Digital calliper (or equivalent)</i> | R |
| 17 | <i>Screws, current-carrying parts and connections</i> | <i>Test screwdriver, test rods, Clause 4.11.6 – IEC 60598-1 equipment</i> | R |
| 18 | <i>Resistance to heat, fire and tracking</i> | <i>Ball pressure test apparatus (see also CTL D.S. N. 391.mod), heating cabinet, digital calliper (or equivalent), timer, glow wire apparatus, tissue paper, timer, measuring device, test equipment required - IEC 60249-1 - Clause 4.3, needle flame burner, tracking test apparatus</i> | R |
| 19 | <i>Resistance to corrosion</i> | <i>Solution of ammonium chloride in water, humidity cabinet, oven</i> | R |
| Annex A | <i>Tests</i> | <i>Oven, adjustable supply unit, amperometer, ohmmeter, temperature measurement device, wooden blocks, draught-proof enclosure according to Annex F, test corner (IEC 61347-1, Annex H, clauses H.1, H.2, H.4, H.7, and subclause H.11.2; in H.1.3, ignore the first paragraph. In all clauses, replace “lamp”, “(lamp) control gear” or “ballast” by “LED module”.</i> | R |